

IN THE CLAIMS:

Please amend the claims as follows:

Claim 1 (Currently amended): Tool for cutting materials comprising a rotatable body with a rotation axis $[(L)]$ and cutting edges $[(10)]$ for cutting the material during movement of the body in a first direction parallel to the rotation axis ~~characterised in that~~ wherein the cutting edges $[(10)]$ comprise inner cutting edges $[(14)]$ laying on a first surface of revolution which is in the first direction higher at a larger diameter and lower at a smaller diameter.

Claim 2 (Currently amended): Tool according to claim 1 wherein at a diameter larger than the inner cutting edges $[(14)]$ outer cutting edges $[(12)]$ are laying on a second surface of revolution which is in the first direction lower at a larger diameter and higher at a smaller diameter.

Claim 3 (Currently amended): Tool according to claim 1 $[[or\ 2]]$, wherein the inner cutting edge extends essentially to the centre of the tool.

Claim 4 (Currently amended): Tool according to claim 1 ~~any of claims 1 to 3~~, characterised in that the outer edge extends substantially to the outer diameter of the tool.

Claim 5 (Currently amended): Tool according to claim 2 ~~or claim 3 or 4 inasfar as dependent on claim 2~~, wherein the first surface and the second surface intersect at a circle and the inner cutting edges $[(14)]$ and the outer cutting edges $[(12)]$ extend to this circle.

Claim 6 (Currently amended): Tool according to claim 5, wherein the circle has a diameter of at least half of the maximum diameter of the outer cutting edges $[(12)]$.

Claim 7 (Currently amended): Tool according to claim 5 $[[or\ 6]]$, wherein the diameter of the circle falls in the range from between 0.5 D and 0.9 D, preferably between 0.6 D and 0.8 D and in particular between 0.74 D and 0.78 D, wherein D is the diameter of the tool.

Claim 8 (Currently amended): Tool according to claim 2 ~~or any of claims 3 to 7 inasfar~~

~~as dependent on claim 2~~, wherein the first surface and/or the second surface are a cone.

Claim 9 (Currently amended): Tool according to claim 8, wherein the cone angles (α_2 , α_1) are both larger than 65° , preferably larger than 75° and in particular between 77° and 87° , the most preferred angles falling within the range from 79° to 82° .

Claim 10 (Currently amended): Tool according to claim 8 ~~[[or 9]]~~, wherein the top angle (α_2) of the cone of the first surface and the top angle (α_1) of the cone of the second surface are approximately equal.

Claim 11 (Currently amended): Tool according to claim 2 ~~or any of claims 3 to 10~~
~~in as far as dependent on claim 2~~, wherein the transition from the first cutting edge to the second cutting edge occurs along a rounded tip portion having a radius r of curvature from between 0.1 mm and 2 mm, preferably 0.2 mm to 0.5 mm.

Claim 12 (Currently amended): Tool according to claim 1 ~~any one of the previous claims~~, wherein near the cutting edges ~~[[(12)]]~~ the rotatable body is provided on its outside circumference with support planes ~~[[(8)]]~~ laying in an approximately cylindrical surface being parallel to the rotation axis ~~[[(L)]]~~.

Claim 13 (Currently amended): Tool according to claim 1 ~~any one of the previous claims~~, wherein an inner cutting edge ~~[[(14)]]~~ and an outer cutting edge ~~[[(12)]]~~ form a cutting tooth ~~[[(5)]]~~.

Claim 14 (Currently amended): Tool according to claim 13, wherein the support planes ~~[[(8)]]~~ are located on the cutting teeth.

Claim 15 (Currently amended): Tool according to claim 13 ~~[[or 14]]~~, wherein the tool ~~[[(1)]]~~ has at least two and preferably four cutting teeth ~~[[(5)]]~~.

Claim 16 (Currently amended): Tool according to claim 15, wherein the tips ~~[[(13)]]~~ of

the different cutting teeth are located on the same circle about the centre of the tool.

Claim 17 (Currently amended): Tool according to claim 1, ~~any one of the previous claims~~, wherein the tool $[(1)]$ is provided with a shank $[(4)]$ for fastening the tool in a clamp $[(2)]$ of a machine tool, the shank having a length such that the distance between the clamp and the cutting edges $[(10)]$ is at least four times the diameter $[(D)]$ of the cutting edges.

Claim 18 (Currently amended): Method for machining material using a tool according to claim 1 ~~one of the previous claims~~, whereby the tool is rotated and in a first movement moved in the direction of its rotation axis $[(L)]$ into the material, retracted, moved a step-distance (S_D) in a direction perpendicular to its rotation axis and in a next movement moved in the direction of its rotation axis into the material, thereby cutting a sickle-shaped section of material wherein ~~characterised in that~~ the step-distance (S_D) is such that the volume machined by the inner cutting edges $[(14)]$ from the sickle-shaped section of material is approximately equal to the volume machined by the outer cutting edges $[(12)]$.

Claim 19 (Currently amended): Method for machining material using a tool according to claim 1 ~~one of the previous claims~~, whereby the tool is rotated and in a first movement moved in the direction of its rotation axis $[(L)]$ into the material, retracted, moved a step-distance (S_D) in a direction perpendicular to its rotation axis and in a next movement moved in the direction of its rotation axis into the material, thereby cutting a sickle-shaped section of material wherein ~~characterised in that~~ the step-distance (S_D) is such that any moment at least two inner cutting edges $[(14)]$ are cutting the sickle-shaped section of material.